



**Product Name:** 

Plastic Bending of Portals

**Product Code:** 

**GENP0003** 



## **Description:**

Plastic Bending of Portals

## **Technical Specification:**

- This preserves the load direction as the portal deforms.
- Students fit the specimen portal frame to fixing blocks that simulate fixed foundations, and apply loads.
- Load cells measure the applied forces and precision indicators measure the portal deformation.
- Each load cell applies and measures the load through cables at 90 degrees to the portal.
- It explains how a building may fail, but still withstand loads to allow people to safely leave before complete collapse.
- Students use textbook equations to predict the results, comparing them to measured results.
- This helps confirm the reliability of the textbook equations and the accuracy of the experiment results.
- Students apply either vertical, horizontal or combined loads to the portal, forcing it to bend through the elastic region and into the plastic region where it deforms permanently, experiencing 'plastic collapse' and the formation of 'plastic hinges'.
- It also shows the interaction between the vertical and horizontal loads and the production of an interaction diagram to predict the failure mode.



## **Equipments Exporters**

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